

Aries Mk6500



user's guide

EXPORT RESTRICTIONS WARNING:

Commodities, products, technologies and services contained in this user's guide may be subject to one or more of the export control laws and regulations of the U.S. Government and they fall under the control jurisdiction of either the US Department of State or the US Bureau of Industry and Security - US Department of Commerce. It is unlawful and strictly prohibited to export, or attempt to export or otherwise transfer or sell any hardware or technical data or furnish any service to any foreign person, whether abroad or in the United States, for which a license or written approval of the U.S. Government is required, without first obtaining the required license or written approval from the Department of the U.S. Government having jurisdiction. Diversion contrary to U.S. law is prohibited.

Export of night vision equipment is strictly prohibited without a valid export license issued by the U.S. Department of State, in accordance with International Traffic in Arms (ITAR), Title 22, Code of Federal Regulations Part 120-130 and or the US BIS-Department of Commerce in accordance with the Export Administration Regulations. For further information contact the Office of Defense Trade Control @ (202) 663 2714.



**AMERICAN
TECHNOLOGIES
NETWORK
CORP.**



The information in this manual furnished for information use only, is subject to change without notice, is not to be construed as a commitment by ATN Corp.

ATN Corp. assumes no responsibility or liability for any errors or inaccuracies that may appear in this book.

©2005 ATN Corp. All right reserved.

APPLICATION

The Aries 6500 night vision weapon scope is a complex computerized system for the observation of objects at low light levels (less than 1.0 lux.) containing an onboard computer. These scopes are some of the most advanced night vision weapon scopes in the world.

The Aries 6500 consists of the objective lens assembly, ocular lens assembly and the body. The body contains the image intensifier tube assembly with the integrated high voltage power source. The body also houses the electronics for the reticle, the computer console for the "Smart Technology" as well as the battery compartment. The 100M infrared illuminator is located on the side opposite to the battery compartment.

The objective lens protective cover (not shown) is designed to protect the lens from scratches and abrasions. This cover also protects the image intensifier tube from exposure to daylight or other bright light sources. The protective cover acts as a daylight filter, note the pinhole in the center of the lens cap.

NOTE: Please refrain from testing in the daylight for more than ten (10) minutes at a time.

MASTER POWER SWITCH

The Master ON/OFF switch is to be found on the back of the 6500/7600. Once the scope's master power is switched on you can adjust the scope using the buttons on the control box.

CONTROL BOX

The control box with the cluster of three buttons on it can be found on the left side of the Aries 6500."SL" button acts as a three-way selection toggle. By pressing it once you will see one of three colored diodes located on the rear side of the control box light up. Make sure to keep both eyes open; your right eye is expected to aim through the scope so that your left eye perceives the changes on the rear side of the control box. "+" and "-" buttons are used to correspondingly increase or decrease adjustments for a chosen function.

The three colored led diodes represent the scope function mode. "B" stands for brightness of the light intensifier tube, "Ft" for reticle brightness, and "I" for IR illuminator brightness.

LIGHT INTENSIFIER TUBE BRIGHTNESS ADJUSTMENT

The green B diode represents light intensifier tube power ratio. Once this is lit you can adjust the brightness of the light intensifier with the "+" and "-" adjustment buttons.

RETICLE BRIGHTNESS ADJUSTMENT

By pressing the SL button twice you switch to a yellow R diode next to the green one. The yellow diode represents the reticle's brightness. Adjustments could be easily seen if you look through the Aries 6500 while pressing "+" / "-" adjustment buttons.

To adjust the brightness of the reticle or to turn it off use the control box buttons located on the side of the unit. Press and hold "+" or "-" adjustment buttons while the yellow diode is on and see brightness changes looking through the scope. After appropriate level of brightness has been set release the button.

INFRA-RED ILLUMINATION

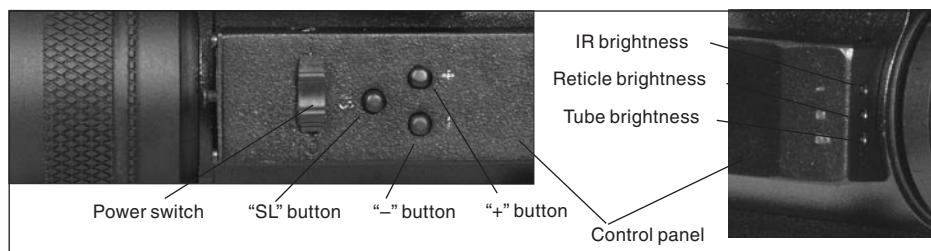
By pressing "SL" button three times you can switch to RED DIODE "I". RED DIODE represents 100M infra-red illuminator's brightness adjustment mode. Adjustments can be easily observed through the Aries scope 6500 while pressing "+" / "-" adjustment buttons.

Infra-red illuminators, or IR illuminators, are common to night vision. The IR light greatly enhances to the performance of the Aries 6500 while remaining almost totally invisible to the naked eye. 100M IR illuminator on the Aries 6500 is located near the windage and elevation adjustments.

Power up the Aries scope in a dark environment. Find an object and examine it with IR off, then on. You could observe illumination difference. It is important to remember that the IR illuminator is simply an infra-red light source and like any light source it may lose its effectiveness over long distances.

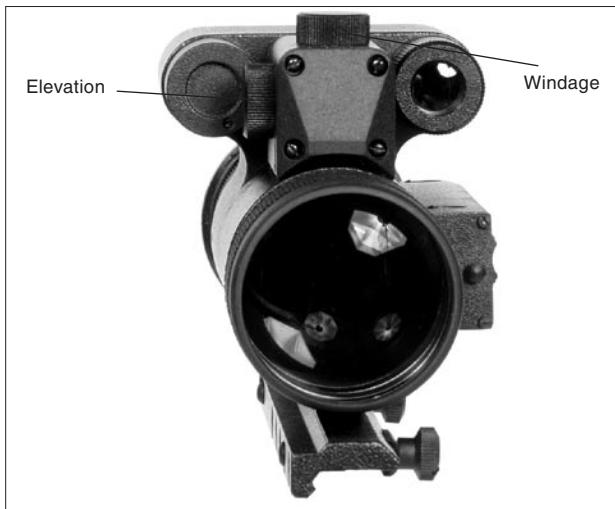
To change the field of coverage from the IR illuminator, focus the beam by turning IR illuminator lens to slightly alter the beam width.

NOTE: The IR switches off automatically after the unit's main power is off.



WINDAGE AND ELEVATION

To adjust vertical and horizontal positions for the Aries 6500/7600 turn the elevation and windage adjustment mechanisms. Each click equals to .5 inch at 100 yards. Do not use force having reached the maximum of rotation.



USING THE REMOTE CONTROL

Below the control box you can find the panel with two screws to fix Aries 6500.

To plug in the remote control, remove the screws and the small panel to disclose the inlet.

The three remote control buttons' function similarly to control box buttons. Once the remote control is plugged in, you may use both panels to adjust the scope.

The remote control can be attached to the weapon of your choice through whatever means suiting your shooting style and grip best. We suggest an elastic Velcro® loop fastener similar to the trigger switches found on weapon-mounted laser pointers.



SLEEP MODE

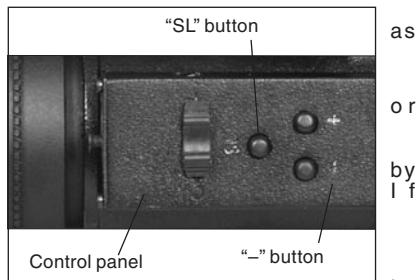
One of the greatest new features that your Smart scope has is the SLEEP mode. This feature has been designed to considerably extend the period of scope's functioning, to set the scope to memorize your initial settings and endure battery's life (by settings we mean only digital settings which include brightness of the tube, brightness of the reticle, and magnitude of the IR.) Here is a description to now the sleep mode functions:

The scope will automatically shut down if it does not sense any activity (i.e. pressing any of the buttons simply moving the scope back and forth away from your face) for 20 minutes. When activating the sleep mode the scope will first warn you turning off the reticle for 10 seconds. You intend to keep using the scope simply touch any key and the scope will reactivate.

One of the reasons for the SLEEP mode being programmed into your scope is to keep the light intensifier tube and batteries safe in case you forget to turn your unit off. If you notice that the reticle turned off after 20 minutes just push the SL button and the scope will return to its previous settings.

To put your scope in the "SLEEP" mode any time, just push the SL button and "-" simultaneously. Push SL to return to previous settings and the SMART scope will remember them. This feature will come very handy, if you are waiting for game to come: you can prepare all of the settings, place the unit in SLEEP mode and activate it precisely when you need it. To disable the proximity sensor press SL and "+" simultaneously. In order to turn the proximity sensor back on, press SL and "+" simultaneously again.

NOTE: The scope is capable of running in SLEEP mode for more than 10 (ten) days and will be ready for use any moment. Remember, you don't have to turn the unit off while you are using it (SMART sight will remember all the settings). Use the master ON/OFF switch only to store the scope. The proximity sensor works best in the dark environment. Daylight testing and/or other situations with strong lighting may result in a temporary decrease of the proximity sensor performance.



LOW BATTERY INDICATOR

The Low Battery Indicator is another feature that is programmed into your SMART scope. **Led "B"** starts to glimmer when the batteries start losing voltage and needed to be replaced.

FOCUSING

To focus the Aries 6500 you need to adjust the diopter first thing. Simply turn the diopter clockwise until it stops. Then concentrate on any object and slowly turn the diopter back counter clockwise until the grain in the image is sharp.

NOTE: *The diopter should be focused during day light with the filter on. Focus the front lens so the image and the grain are both sharp. When you are in the low-light conditions and the daylight filter is off you may focus the front lens for the image to be sharp. The diopter is not to be adjusted.*

NOTE: *The front lens should be readjusted correspondingly for viewing objects at different distances.*



CLEANING THE EYEPIECE

You may need to clean the eyepiece end in order to guarantee top performance. When you receive your Aries 6500 you should check for dust on the eyepiece of the unit.

On the Aries Mk 6500 simply turn the eyepiece counter-clockwise until it stops. Now, with a little more effort in the same counter-clockwise direction, you can unscrew the eye piece section of the scope.

Once the eyepiece section has been removed from your Aries scope you may clean the dust off the glass surfaces and the phosphor screen of the light intensifier tube. When reinserting the eyepiece into the scope make sure it is seated tightly with the internal rubber bushings.

CAUTION: *Use only Photographic lens cleaning tissue on these surfaces. Be careful not to scratch or smudge any of them. When using compressed air to blow the dust away make sure to avoid inverting the can while spraying. This may cause the frozen propellant to exit the can and cause serious problems with the glass and phosphor screens.*

USING THE CAMERA ADAPTER (OPTIONAL)

To use your Aries scope with a 35-mm camera or camcorder the following features needed to be preserved in the mentioned devices:

- 1) the camcorder to be used should have MACRO feature. Most modern camcorders today have a MACRO feature built-in.
- 2) 35-mm camera to be used should contain MACRO lens. If you don't have one we would advise you to contact your local camera store.
- 3) You may or may not need a STEP-UP or STEP-DOWN ring in order to make the camera adapter fit your lens.

NOTE: *The camera adapter comes with 37-mm and 52-mm threads. If you need other sizes we would advise you to contact your local camera store.*

Here are the steps to be followed while fixing Aries to your camera or camcorder:

- Remove the rubber eyecup from the Aries riflescope.
- Screw the camera adapter onto the front of the lens on your Video camera lens or your 35-mm camera lens.
- Loosen the three set screws on the camera adapter.
- Place the camera adapter over the scope's eyepiece.
- Tighten the three set screws to fit snugly to the scope's eyepiece
- You may need to focus the 35-mm camera or video camera in combination with the rifle-scope in order to get the sharpest possible image.
- We would advise you to focus the Aries riflescope in the open air. For the best performance you should disable the auto focus (if any) on either the 35-mm camera or the video camera and manually focus the 35-mm camera or the video camera. Once the image is sharp simply adjust the scope's front lens to change the focus.
- An important thing to remember is that our system is arranged in such way that the pictures are taken of the phosphorous screen of the Aries riflescope that is only 2-3 inches away, not of an object itself that could be at a different distance from you.



PREPARATION FOR OPERATION

Before getting started make sure to follow these steps:

- Take the scope out of the case.
- Insert the batteries into their housing with the polarity order shown on the main body of the unit.
- Switch on the Aries scope by the master power switch, make sure the protective lens cover is still attached to the lens.
- The unit will turn on automatically when you bring it to your eye and the proximity emitter will send a beam out to sense the distance to your forehead.
- We expect your right eye to aim through the scope. Keep both of your eyes open so you are able to see the color-coded LEDs with your left eye.
- In order to assure the proper functioning of the proximity sensor make certain that the protective glass surface of the sensor is always clean.
- When the scope is first powered up, the initial settings are:
 - Light intensifier tube Brightness - 100%;
 - Reticle brightness - 50%;
 - Illuminator brightness - 100%.
- Observe the scene, and adjust the diopter for optimal image clarity (as described in focusing p 6).
- You may now enter the dark environment or simply shut the lights off in order to darken the room.
- Remove the lens cap/daylight filter.
- Observe the scene and adjust the front lens for ideal focus.
- Adjust the digital features as needed.
- The unit will turn off automatically if you move it away from your face.
- To increase battery life the LED diodes go off after 10 seconds.
- You will need to focus for different distances.
- Take your time learning about your SMART scope. It will take practice to properly use this device. As you use this scope you will be able to improve your speed of focusing, as well as sharpness of image.
- Have fun and enjoy.

WARNINGS AND CAUTIONS

- Always remember to turn off the Aries 6500 when it is not in use. If you do not plan to use your Aries scope for a period of more than 10 days you should remove the batteries.
- Keep lens cap/daylight filter on when not in use.
- Avoid contact with dust, steam, and gas.
- The Aries 6500 is not harmful to the user or the environment.
- Do not disassemble except to clean the front lens and the eyepiece: it will void your warranty.
- Evaluate the scopes function by looking through it in a lit environment with the daylight filter lens cap on. Never use in daylight without the daylight filter lens cap on. Do not surpass ten minutes of testing.
- Never point the Aries 6500 at a bright light source. If the scope shuts off automatically after directing it at a bright light source, turn the unit off and wait for 1 - 2 minutes before turning the unit on again.
- Adverse atmospheric conditions, such as fog, smog, or haze and lack of ambient light (moon or starlight) may diminish the effective viewing distance. All technical data for this unit was compiled in a controlled environment.

TROUBLE SHOOTING

Q: Flashes, flickers, or clicking occur while operating

S: If it occurs within the first five minutes of inserting new batteries it is normal and the device will resume normal operation soon thereafter. If it occurs after 10 minutes contact your dealer or other authorized service representative for service instructions.

Q: Dark spots on screen.

S: These are cosmetic blemishes in the intensifier tube. They are a by-product of the process of manufacturing night vision tubes. They will not impede your viewing ability.

Q: Image not clear.

S: Adjust focus ring. If problem persists increase viewing distance

Q: Fixed-pattern noise in the honeycomb shape.

S: Usually it is a cosmetic blemish characterized by a faint honeycomb-type pattern. This usually occurs when viewing very bright lights. Adjust the potentiometer to reduce brightness.

Q: A pattern of dark thin lines looking like chicken wire.

S: Turn on the illuminator, if purchased. If the illuminator doesn't brighten the image replace the batteries. If the problem persists contact for service instructions.

ARIES MK 6500 SPECIFICATIONS

Magnification	4x
Intensifier Tube.....	2nd Gen, 18 mm
Lens System.....	6 element 90 mm; F1.6
Field of View	11°
Resolution	34 lp/mm
Maximum tube gain	65,000 x
Range of Focus	10' to ∞
Power Supply.....	Two 3-V batteries
Battery Life	20 hours of continuous use
Operating Temperatures	-40°F to +110°F
Weight	1.0 kg.

FEATURES

- Digital “Smart technology”
- Total darkness technology
- Automatic brightness control
- Built in 100-m IR illuminator
- Internally adjustable lit reticle for windage and elevation
- Mounts to standard U.S. weaver
- Recoil & flash resistant intensifier tube
- Auto SLEEP mode
- Video/35-mm camera adaptable
- Superb multi-coated 6-element lens system
- Manufactured exclusively by ATN
- Two-year warranty
- Assembled in the U.S.A.

2 YEAR PRODUCT WARRANTY

This product is guaranteed to be free from manufacturing defects in material and workmanship under normal use for a period of 2 (two) years from the date of purchase. In the event a defect that is covered by the foregoing warranty occurs during the applicable period stated above, ATN, at its option, will either repair or replace the product, and such action on the part of ATN shall be the full extent of ATN's liability, and the Customer's sole and exclusive remedy. This warranty does not cover a product (a) used in other than its normal and customary manner; (b) subjected to misuse; (c) subjected to alterations, modifications or repairs by the Customer or by any party other than ATN without prior written consent of ATN; (d) special order or "close-out" merchandise or merchandise sold "as-is" by either ATN or the ATN dealer; or (e) merchandise that has been discontinued by the manufacturer and either parts or replacement units are not available due to reasons beyond the control of ATN. ATN shall not be responsible for any defects or damage that in ATN's opinion is a result from the mishandling, abuse, misuse, improper storage or improper operation, including use in conjunction with equipment which is electrically or mechanically incompatible with or of inferior quality to the product, as well as failure to maintain the environmental conditions specified by the manufacturer. **CUSTOMER IS HEREBY NOTIFIED THAT OPERATION OF THE EQUIPMENT DURING DAYLIGHT HOURS OR UNDER ANY EXCESSIVE LIGHT CONDITIONS MAY PERMANENTLY DAMAGE THE INTERNAL COMPONENTS OF THE UNIT AND SAID DAMAGE WILL NOT BE COVERED UNDER THIS WARRANTY.** This warranty is extended only to the original purchaser. Any breach of this warranty shall be waived unless the customer notifies ATN at the address noted below within the applicable warranty period.

The customer understands and agrees that except for the foregoing warranty, no other warranties written or oral, statutory, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose, shall apply to the product. All such implied warranties are hereby and expressly disclaimed.

LIMITATION OF LIABILITY

ATN will not be liable for any claims, actions, suits, proceedings, costs, expenses, damages or liabilities arising out of the use of this product. Operation and use of the product are the sole responsibility of the Customer. ATN's sole undertaking is limited to providing the products and services outlined herein in accordance with the terms and conditions of this Agreement. The provision of products sold and services performed by ATN to the Customer shall not be interpreted, construed, or regarded, either expressly or implied, as being for the benefit of or creating any obligation toward any third party of legal entity outside ATN and the Customer; ATN's obligations under this Agreement extend solely to the Customer. **ATN's liability hereunder for damages, regardless of the form or action, shall not exceed the fees or other charges paid to ATN by the customer or customer's dealer. ATN shall not, in any event, be liable for special, indirect, incidental, or consequential damages, including, but not limited to, lost income, lost revenue, or lost profit, whether such damages were foreseeable or not at the time of purchase, and whether or not such damages arise out of a breach of warranty, a breach of agreement, negligence, strict liability or any other theory of liability.**

PRODUCT WARRANTY REGISTRATION

In order to validate the warranty on your product, ATN must receive a completed Product Warranty Registration Card for each unit. Please complete the form below and immediately mail it to our Service Center: ATN Corporation, 20 South Linden Ave., Suite 1B, South San Francisco CA 94080. Products qualifying for warranty repair will be either repaired or replaced within 10 business days of receipt of merchandise unless the customer is notified otherwise.

OBTAINING WARRANTY SERVICE

To obtain warranty service on your unit, take or send the product, postage paid, with a copy of your sales receipt to our service center, ATN Corporation at the address noted above. All merchandise must be fully insured with the correct postage; ATN will not be responsible for improper postage, or, missing or damaged merchandise during shipment.



For customer service and technical support, please contact
American Technologies Network Corp.

North American Office

20 S. Linden Ave. Suite 1B, South San Francisco, CA 94080
phone: 800-910-2862, 650-875-0130; fax: 650-875-0129

European Office

phone: 44(0)870-0111286, fax: 44(0) 845-3349142

The following countries can use our
toll free number 00 800 9102-8620

Austria, France, Germany, Holland, Italy, Spain, Sweden, Switzerland

www.atncorp.com